

2011 Drinking Water Quality Report (Consumer Confidence Report)

City of Round Rock
(512) 341-3333

The United States Environmental Protection Agency (EPA) requires that all drinking water suppliers provide a water quality report to their customers on an annual basis. This Drinking Water Quality Report provides information on the City of Round Rock drinking water.

En Espanol

Este reporte incluye informacion importante sobre el agua para tomar. Para obtener una copia de esta informacion traducida al Espanol, favor de llamar al telefono (512) 218-5555.

Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements

This report is a summary of the quality of the water we provide our customers. The analysis was made using the data from the most recent EPA required tests and is presented in the following pages. We hope this information helps you become more knowledgeable about what is in your drinking water.

Where Your Water Comes From

Round Rock drinking water customers receive their water from ground and surface water sources. Approximately 82 percent comes from Lake Georgetown and the remainder comes from the Edwards Aquifer. A Source Water Susceptibility Assessment for our drinking water is currently being updated by the Texas Commission on Environmental Quality (TCEQ). This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies. Some of this source water assessment information is available on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW/>.

It is important to protect drinking water by protecting our water sources. You can help by disposing of hazardous home chemicals properly. For disposal information, call (512) 218-5559 or go to roundrocktexas.gov/recycle.



ALL drinking water may contain contaminants

When drinking water meets federal standards, there may not be any health based benefits to purchasing bottled water or home treatment devices. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

Secondary Constituents

Many constituents, such as calcium, sodium, or iron, which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor are called secondary constituents and are regulated by the State of Texas, not EPA. These constituents are not causes for health concerns. Therefore, secondary constituents are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Special Notice Required language for ALL Public Water Supplies

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at (800) 426-4791.

The City of Round Rock had no reporting, monitoring, maximum contaminant level exceedance or notification violations in 2011.

PUBLIC PARTICIPATION OPPORTUNITIES

The public is welcome to attend the Round Rock City Council meetings held each second and fourth Thursday at 221 E. Main Street in Round Rock. For specific questions related to this report, please call (512) 341-3333 or email kiml@roundrocktexas.gov.

WATER HARDNESS

Many consumers believe that their water must be softened in order to prevent damage to plumbing and fixtures. This is untrue. The average water hardness in Round Rock is 189 mg/L or approximately 11 grains per gallon. While this level of hardness may cause minor aesthetic problems such as water spots and dry skin, it does not cause damage to plumbing.

The city routinely performs laboratory tests to measure the stability of the drinking water. The stability refers to whether the water is aggressive or depositional. Test results indicate that the City of Round Rock drinking water, as delivered to your home, is stable. Please see page 4 of this report and our web site, www.roundrocktexas.gov for more information.

DEFINITIONS

Maximum Contaminant Level Goal (MCLG)

The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL)

The highest permissible level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs

as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level (MRDL)

The highest level of disinfectant allowed in drinking water.

Maximum Residual Disinfectant Level Goal (MRDLG)

The level of a drinking water disinfectant below which there is no known or expected risk to health.

Treatment Technique (TT)

A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

NTU - Nephelometric Turbidity Units

MFL - million fibers per liter (a measure of asbestos)

pCi/l - picocuries per liter (a measure of radioactivity)

ppm - parts per million, or milligrams per liter (mg/L)

ppb - parts per billion, or micrograms per liter (ug/L)

ppt - parts per trillion, or nanograms per liter

ppq - parts per quadrillion, or picograms per liter

Summer Watering Schedule 2012

The City of Round Rock residents are asked to water twice a week or less, using the schedule below. While this is voluntarily, you are asked to water only on your assigned days before 10:00 am or after 7:00 pm. Following the water schedule saves energy, money and protects the quality of life for future generations.

Property Type	Watering Days
Residential Odd-Numbered Address	Wednesday and/or Saturday
Residential Even-Numbered Address	Thursday and/or Sunday
Commercial, Industrial, Multifamily, Institutional, Government	Tuesday and/or Friday

See the City's web site for more information on Water Conservation (www.roundrocktexas.gov/waterconservation).

Inorganics

Year	Constituent	High	Low	Average	MCL	MCLG	Units	Violation	Source of Constituent
2011	Barium	0.0333	0.0577	0.0325	2	2	ppm	N	Erosion of natural deposits.
2011	Fluoride	1.1	0.1	0.39	4	4	ppm	N	Erosion of natural deposits; water additive which promotes strong teeth.
2011	Radium 228	<1.0	<1.0	<1.0	5	0	pci/L	N	Erosion of natural deposits.
2011	Nitrate (Surface Water)	0.26	0.26	0.26	10	10	ppm	N	Runoff from fertilizer use; Leachate from septic tanks, sewage; erosion of natural deposits.
2011	Nitrate (Ground Water)	1.84	1.84	1.84	10	10	ppm	N	Runoff from fertilizer use; Leachate from septic tanks, sewage; erosion of natural deposits.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Lead and Copper in Distribution System

Year	Constituent	90 th Percentile	Sites Exceeding Action Level	Action Level	Units	Violation	Source of Constituent
2009	Lead	0.007	2 of 30	0.015	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits.
2009	Copper	0.57	1 of 30	1.3	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water supply is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Disinfectant Residuals

Year	Constituent	High	Low	Average	MRDL	MCLG	Units	Violation	Source of Constituent
2011	Chloramine	3.66	1.20	2.93	4	<4	ppm	N	Disinfectant used to control microbes.

Disinfection Byproducts

Year	Constituent	High	Low	Average	MCL	MCLG	Units	Violation	Source of Constituent
2011	Total Trihalomethanes	56.7	8.1	36.525	80	0	ppb	N	Byproduct of drinking water chlorination.
2011	Haloacetic Acids	21.5	2.3	14.0625	60	0	ppb	N	Byproduct of drinking water chlorination.

Total Organic Carbon of the Source Water

Year	Constituent	High	Low	Average	MCL	MCLG	Units	Source of Constituent
2011	Total Organic Carbon	3.88	2.96	3.34	None Established		ppm	Naturally occurring organic material. There are no health effects directly associated with TOC.

Turbidity

Year	Constituent	High	Low	Average	MCL	MCLG	Units	Violation	Source of Constituent
2011	Turbidity	0.29	0.01	0.0658 0%>0.3	0.3	NA	NTU	N	Soil runoff.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Unregulated Contaminants

Year	Constituent	High	Low	Average	MCL	MCLG	Units	Violation	Source of Constituent
2011	Dibromochloromethane	13	1.8	7.4	None Established		ppb	N	Unregulated contaminant, monitoring helps EPA determine where certain contaminants occur and whether those contaminants need to be regulated.
2011	Chloroform	7.4	<0.5	3.95	None Established		ppb	N	
2011	Bromoform	3.1	1.6	1.85	None Established		ppb	N	
2011	Bromodichloromethane	11	1	6	None Established		ppb	N	

Availability of Unregulated Contaminant Monitoring Rule Data (UCMR)

We participated in gathering data under the UCMR in order to assist EPA in determining the occurrence of possible drinking water contaminants. If any unregulated contaminants were detected, they are shown in the tables elsewhere in this report. These data may also be found on EPA's web site at <http://www.epa.gov/safewater/data/ncod.html>, or you can call the Safe Drinking Water Hotline at (800) 426-4791.

Coliform

Year	Constituent	Highest % of Positive Samples	MCL	Units	Violation	Source of Constituent
2011	Total Coliform	0.93%	Presence in 5% or more of the monthly samples.	presence	N	Naturally present in environment.
2011	Fecal Coliform	1 positive of 108 samples	Routine or repeat sample is coliform positive and one is also fecal positive.	presence	N	Naturally present in environment.

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are harder than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Fecal coliform bacteria and, in particular, *E. coli*, are members of the coliform bacteria group originating in the intestinal tract of warm-blooded animals and are passed into the environment through feces. The presence of fecal coliform bacteria (*E. coli*) in drinking water may indicate recent contamination of the drinking water with fecal material.

Secondary and Other Constituents Not Regulated

Year	Constituent	High	Low	Average	Secondary Limit	Units	Violation	Source of Constituent
2011	Aluminum	0.0719	0.0719	0.0719	0.05-0.2	ppm	N	Naturally occurring element.
2011	Bicarbonate	343	178	260.5	NA	ppm	N	Corrosion of carbonate rocks such as limestone.
2011	Calcium	97	47.9	72.45	NA	ppm	N	Naturally occurring element.
2011	Chloride	24	16	20	300	ppm	N	Naturally occurring element.
2011	Magnesium	18.5	11.1	14.8	NA	ppm	N	Naturally occurring element.
2011	Nickel	0.0023	0.0036	0.0029	NA	ppm	N	Erosion of natural deposits.
2011	pH	7.5	7.4	7.45	> 7.0	units	N	Measure of corrosivity of water.
2011	Sodium	14.8	7.16	10.98	NA	ppm	N	Naturally occurring element.
2011	Sulfate	38	23	32	300	ppm	N	Naturally occurring material.
2011	Hardness (surface water)	180	158	169	NA	ppm	N	Naturally occurring calcium and magnesium
2011	Hardness (ground water)	320	236	280	NA	ppm	N	Naturally occurring calcium and magnesium
2011	Total Alkalinity	281	146	231.5	NA	ppm	N	Naturally soluble mineral salts.
2011	Total Dissolved Solids	352	198	275	1000	ppm	N	Total dissolved mineral constituents in water.

Water Stability - Langelier Saturation Index 2011

Surface Water Average = 0.02

Ground Water Average = 0.04

Results between -0.5 and 0.5 indicate that the water is balanced or stable.

A Note about Storm Water and Pollution Prevention

The City of Round Rock works to prevent pollution of our lakes, creeks, rivers, streams and aquifers. Storm water pollution can lead to contamination of these vital water sources and increase the cost of treating drinking water as well as adversely impacting the environment.

Storm water pollution occurs when rainfall picks up and carries pollutants into local waterways and aquifers. How can you help? Never sweep leaves or grass clippings into a storm drain. Take used oil and home chemicals to a recycling center or to a household hazardous waste collection event. Follow directions on pesticides and fertilizers and avoid application when rain is forecast. If you have pets, pick up their waste and dispose of it properly to keep bacteria and parasites out of our creeks. Remember, Storm Water drains to creeks. For more information about preventing Storm Water pollution please visit www.roundrocktexas.gov/stormwater.